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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of: **Hirosi Tunoda**

Group Art Unit: **2622**

Serial No.: **09/406,798**

Examiner: **Justin P. Misleh**

Filed: **September 28, 1999**

P.T.O. Confirmation No.: **1948**

For: **METHOD FOR RECORDING IMAGE AND IMAGE PICKUP APPARATUS**

REPLY TO EXAMINER'S ANSWER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dkt. 991094

January 25, 2008

Sir:

This paper is in response to the Official Action mailed November 28, 2007. No fee is due. In the event that this paper is not timely filed, please consider this paper a petition for an appropriate extension of time. Please charge any fees needed for such an extension of time, and any other fees which may be due with respect to this paper, to **Deposit Account No. 01-2340**.

The honorable Board is invited to consider:

I. In Fukushima's Fig. 5, the lowermost decision, step S1031, reads, "IS C MODE SET?" At col. 17, line 31, Fukushima explains that "C mode is set by ... switch 1066 to continue the photographing operation." The honorable Board is invited to note that, according to Fig. 5, when the C mode is set flow then returns to S1021 at the top of Fig. 5 and, unless recording is stopped by releasing starting switch 1064 (decision at step S1026), then each run through the algorithm of Fig. 5 entails step S1028, "INITIATE START-UP OPERATION OF RECORDING MEDIUM." Clearly, there is intermittent operation of this medium, which the Examiner equates to the hard drive.

II. The Examiner admits such an intermittent operation in the Fukushima hard drive, writing that "the hard drive is alternately switched between a power saving mode and an activated mode" (page 14, line 10). However, the Examiner also asserts that this "switching is continuous and also at a steady rate" (page 14, line 12).

With respect, the Examiner is mistaken for several reasons.

(a) First, the word "continuous" (used in the Applicant's claim 1 at lines 2, 8, and 10) has a definition contrary to what the Examiner asserts is disclosed: namely, switching back and forth. The Examiner's alternately switching modes are described by the word "continual," not by the word "continuous."

The Applicant's dictionary (Random House) defines *continuous* as "uninterrupted in time" and this definition excludes any state which is interrupted by another. On the other hand, *continual* means "of regular or frequent recurrence" and the dictionary further explains that "CONTINUAL implies that successive recurrences are very close together, with only small breaks between them ... CONTINUOUS emphasizes the idea that the succession is unbroken."

Thus, each of the modes is not continuous but continual, and what the Examiner asserts as anticipating is not something that actually meets the dictionary definition of the claim's terminology.

(b) Claim 1 also recites recording "without pausing, interrupting." This is in complete accord with the dictionary definition of the word "continuous" quoted above, which excludes interruptions. This claim language in claim 1 also *excludes* any definition broadened beyond the dictionary meaning, for example, taking "continuous" to mean the same as "continual."

(c) The Examiner states (page 14, line 16) that the Fukushima hard drive switches between power-saving and activation modes, but then asserts that the operation of the hard drive "would never be paused or interrupted."

This assertion is incorrect on its face. If the hard drive is switched between modes, and one of these modes is non-functional (Fukushima says the recording head is off the disk in the power saving mode, at col. 6, line 53), then the operation of the hard drive—that is, recording or writing data—most certainly is "interrupted," contrary to what the Examiner asserts. As such, it is not "continuous" as the Applicant claims.

(d) The "steady rate" asserted by the Examiner is not supported by either citation or argument. (The Applicant understands "steady" to mean that the recurrence of the mode switching is at constant frequency or rate.)

III. In the Answer, the Examiner relies on Fukushima's statement that it can "stably execute continuous recording of an image signal" (quoted at page 5, line 7 of the Answer). The Examiner submits that Fukushima discloses "continuous image pickup, storage, and recording [that] is uninterrupted and unaffected by the total amount of image data that is captured or stored" (bottom of page 5). The Examiner cites col. 10, lines 23-47 for support.

(a) Fukushima's statement about stable, continuous recording of an image signal is not a statement that there is stable continuous operation of the hard drive. Fukushima is merely stating that a recording can be made without gaps or jitter.

(b) The text cited by the Examiner at col. 10, lines 23-47 of Fukushima makes no statement about how, or when, the hard drive is *stopped*. The cited text says that battery life is extended by delaying the start of hard drive rotation, and that a "stable, continuous-shooting recording operation without causing the buffer memories ... to overflow and interrupting the continuous-shooting recording operation" is possible with its system (that is, image recording is continuous, but the disk operation is *not* necessarily continuous). Finally, it says that the delay of starting the hard drive can be adjusted to minimize the spin time of the hard drive.

There is no teaching in this cited text about any continuous operation of the hard drive, and therefore there is no anticipation of the Applicant's claimed "recording ... into the non-volatile recording medium ... continuously ... without pausing, interrupting or reducing the rate of recording." This feature is not disclosed.

IV. Fukushima is concerned with a problem of using removable hard disks, namely, that they have different times to reach full speed, and therefore the camera allots an amount of time for start-up that is equal to the time required by the slowest-accelerating removable hard disk; however, this wastes energy when the faster removable hard disks are used (col. 2, lines 46-57). This, says Fukushima, creates the "problem" that "the hard disk is held in a continuous rotating state longer than required" which wastes power and "remarkably decreases" the battery life (col. 2, line 58 to col. 3, line 1). Fukushima's solution to the problem is to delay starting the hard disk so as to save energy. In contrast, the Applicant's claim 1 does not recite any such delay.

Respectfully submitted,

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